

Report of the Director of City Strategy

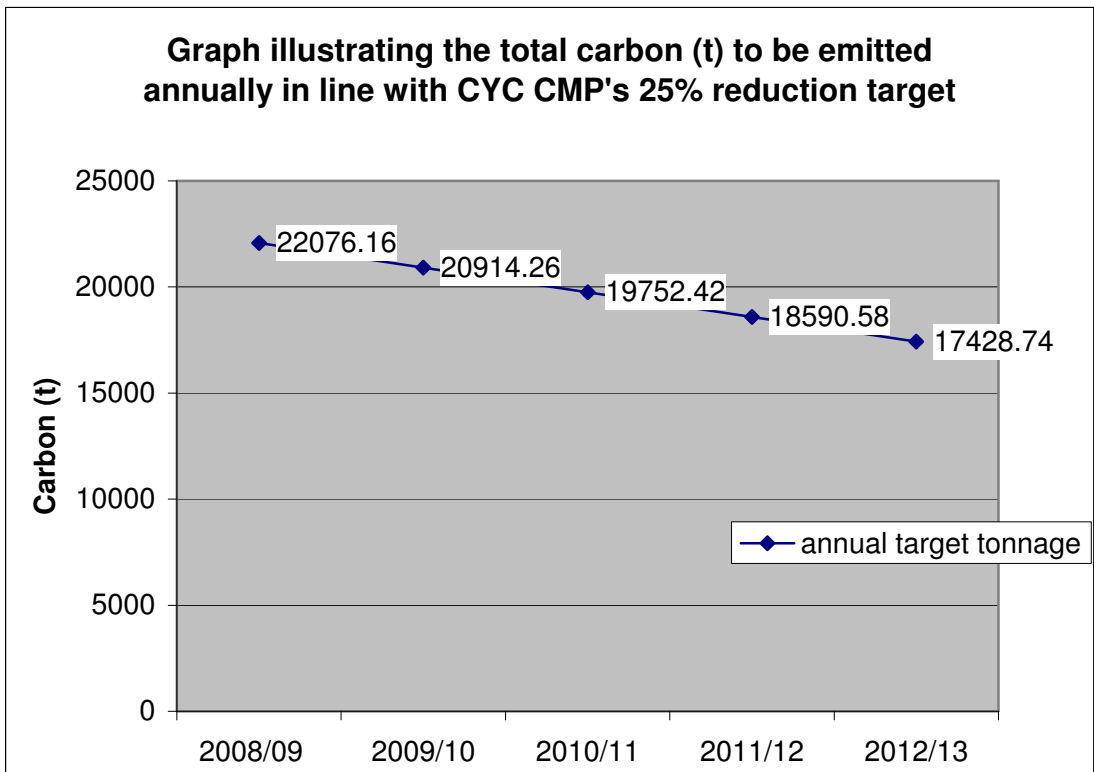
## **Carbon Management Programme – Strategy & Implementation Plan Update**

### **Summary**

1. The purpose of this report is to provide an update on the Carbon Management Programme (CMP). This document outlines completed projects and identifies future projects to be implemented. The report also outlines the forthcoming Carbon Reduction Commitment (CRC).

### **Background**

2. In April 2007 City of York Council (CYC) was selected for the Local Authority Carbon Management Programme. This one year programme, run by the Carbon Trust, created the City of York Carbon Management Programme Strategy and Implementation Plan (CMP SIP) which was presented and approved by the Executive in April 2008 and set the target '*The City of York Council will reduce its CO<sub>2</sub> emissions by 25% on 2006/07 baseline by 2013*' (excluding housing). Over the CMP SIP five-year period, CYC will need to save approximately 5800 tonnes of carbon (this equates to approximately 1160 tonnes of carbon per annum being saved).
3. The graph below projects this reduction and plots linear savings to illustrate the annual carbon emissions needed in order to reach the CMP's 2013 target. Members should note it is not envisaged that such tonnage will be saved annually, but over the course of the five-year period, with major tonnage savings occurring towards the mid/end of the five-year period.



4. The Strategy and Implementation Plan approved is attached as Annex A.

**Current Position**

5. Since implementation in April 2008 four projects have been successfully completed and have saved approximately 380 tonnes of carbon. A further six projects saving approximately 1374 tonnes are likely to be completed in 2009/10.

**Completed CMP SIP projects:**

	<b>Project</b>	<b>Updated Progress</b>	<b>CO<sub>2</sub> Savings (tonnes)</b>
1	EcoDepot	Complete	25
2	Yearsley Pool	Complete	230
3	Recycling of waste in schools	Complete	111
4	Renewable energy in bollard trials	Complete	14

<b>Total</b>	<b>380</b>
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**2009/10 CMP Existing Projects:**

	<b>Project</b>	<b>CO<sub>2</sub> Savings (tonnes)</b>	<b>Original timescale for completion</b>	<b>Updated Progress</b>
1	Integrated transport	70	Oct 2010	Ongoing and progressing well.
2	York High & Oaklands Sports Centre	904	Autumn 2009	York High is complete with a fully operational biomass boiler. The swimming pool is scheduled to be completed in the Autumn. Detailed CO <sub>2</sub> savings will be available after June 2009.
3	Joseph Rowntree new build	250	Feb 2010	This project is on course and a 250 kw biomass boiler is to be installed.
4	Office recycling	150	Winter 2009	This scheme provided recycling collections to the council's main administrative buildings (This was completed in 2008 and some subsequent development of the collections has lead to expansion to several other offices. Some further offices will be rollout to in 2009, to complete the roll out to all council buildings (including libraries)
5	Renewable energy in bollard trials	TBC	TBC	Further renewable energy trials in bollards will continue to be piloted. A Sustainable Lighting Strategy Is currently being written. More information will be available later in the year on this and potential schemes that will feed into this CMP.

6	Efficiency of streetlights trial	TBC	TBC	There are a number of trials on going across the city reducing CO <sub>2</sub> emissions. More information will be available later in the year on this and potential schemes that will feed into this CMP. A Sustainable Lighting Strategy is also currently being written.
	<b>Total</b>	<b>1374</b>		

6. It is anticipated that from 2008 – 2010 the CMP will have saved approximately 1754 tonnes of carbon (including savings from council owned buildings including schools, street lighting, fleet transport, in work staff travel, and council organisational waste). An additional 740 tonnes will also be saved once a bid to Salix (see section 11) is approved and the projects implemented. Therefore approximately 2494 tonnes of carbon are anticipated to be saved by the end of 2010 against the target of 5800 tonnes.
7. CYC will still need to save a further 3306 tonnes of carbon by 2013 in order to reach its target. Based on the expected tonnage summarised above in section 6, the CMP programme will, once all of the schemes are implemented, be just under half way to achieving the 5800 tonnes of carbon saving required.
8. Further additional savings will be made through outstanding significant schemes yet to implemented but identified in the CMP SIP and through work identified in sections 11 – 16 of this report. Approximately 800 additional tonnes of carbon are anticipated to be saved through the Admin Accommodation review and new council headquarters (see page 35 of Annex A). This project will play a significant role in assisting CYC to reach the 2013 target. Similarly, a council-wide staff behavioural change and monitoring scheme (see page 45 of annex A for full details) and turning the heating down to 19 degrees Celsius (see page 47 of Annex A) if implemented could potentially save 940 tonnes of carbon if carried out across the whole of CYC (see section 15 for additional information on this project)
9. The table below illustrates how the CMP SIP identified projects above can potentially ensure that CYC is a substantial way to achieving the 25% reduction by 2013.

Project	CO <sub>2</sub> Savings (tonnes)	Proposed Timescale
Completed projects to date - see section 5 above	380	2008/09

On-going projects to be completed by/early 2010	1374	Spring 2010
Future Salix/CYC funded projects	740	Autumn 2010
A staff behavioural change and monitoring scheme and turning the heating down to 19 degrees Celsius in CYC buildings (including Policy to support this)	940	TBC * subject to full funding.
Admin Accommodation	800	TBC
<b>TOTAL</b>	<b>4234</b>	

10. The following sections of this report details actions being taken to ensure the council reaches its 2013 target and includes key areas of work to investigate in order to meet the full 5800 tonne reduction requirement. Full forecasted carbon savings and a project plan and timetable for implementation will be provided to the Executive once the first year of data is confirmed. Data on the actual savings made in 2008/09 will be available from June 2009.

#### **Additional CMP related work carried out**

11. A bid for £250,000 will be made to Salix (a publicly funded company set up to accelerate energy efficient technologies through invest to save schemes) for SIP projects that deliver both CO<sub>2</sub> and revenue benefits and offer long term CO<sub>2</sub> savings. If successful, Salix will part fund the projects identified in Annex B (please note that a successful CYC capital allocation will match fund this bid to the value of £250,000). Therefore the CMP will have £500,000 to implement schemes and jump-start investment in new projects as a result of the savings. Annex B details the projects to be funded and a summary of the technology to be used. Once installed such projects will save approximately 740 tonnes of carbon a year.
12. The CMP Core team (made up of officers from across the council) will continue to meet, investigate and progress existing CMP schemes. So as to continue the progress of the CMP, this Core team will also investigate new projects. The team plan to meet every 2 months and will hold themed workshops to address specific areas of work. Key themes to be addressed in 2009 will include looking at future projects to reduce emissions from street lighting, schools, CYC housing stock, transport, waste, procurement and IT.

13. To date the CMP work has centred on buildings (non-school) due to difficulties in finding schemes that deliver both CO<sub>2</sub> and revenue benefits and that are within CYC/Salix funding envelope. Specific issues associated to street lighting and schools are detailed below:

- Street lighting – To date only trials in the city have commenced due to high capital costs of city-wide improvement programmes, non-compliance with potential external funding streams such as Salix, long pay back periods (usually over 5 years) and relatively low carbon savings (based on the levels of investment). However, at the time of writing this report additional funding has been recommended in the Executive's budget proposal for 2009/10 to support this work. The Executive recommend for approval an advance from CYC's Venture Fund of £100,000 in 2009/10 and £200,000 in 2010/11. Further details on this programme will follow in subsequent Executive update reports and will reduce both revenue costs and CO<sub>2</sub> emissions for CYC.

- Schools – School projects will save substantial carbon but in order to use Salix funding and start the invest to save financing system, any financial savings made from the energy efficient installations in schools needs to be returned to the central ring fenced Salix fund. Schools budgets are funded via a ring fenced grant called the Direct Schools Grant (DSG) and as such schools are not allowed to give funding to other parts of the council. Therefore any revenue savings that occur in a school as part of the carbon reduction programme would not be allowed to be given back to the Salix fund. To date this has prevented the CMP pursuing such options. However there is a mechanism that exists whereby a school could be considered to have been granted a loan from the Salix fund to invest in new energy efficient facilities and then 'repay' this loan back to council, which could then be used to top back up the Salix fund. The terms and conditions of each 'loan' would have to be agreed individually with each school. The CMP Board endeavors to set this up so as to ensure schools can be a large part of the CMP in the future.

14. The CMP team will also look at ways to include additional projects carried out across CYC that at present do not feed into CMP but are reducing carbon emissions (directly and indirectly). For example – under the current fleet replacement programme approximately 30 cars have been replaced during the past 12 months. If those cars average 6000 miles per annum, they will emit 151.68 tonnes less CO<sub>2</sub> than that of the previous 30 cars. An inventory will be created by the proposed Data Analyst to record other CYC projects and potential and actual CO<sub>2</sub> savings.

15. Other areas of work will include piloting staff behavioural and smart monitoring schemes for buildings across CYC (as identified in the SIP – project 9). At the time of writing this report £20,000 has been recommended in the Executive's budget proposal for 2009/10 to support this work. Such work will ensure that building occupiers receive bespoke advice, training and information on energy conservation and that reduction targets are set and monitored to show energy, CO<sub>2</sub> and revenue savings. The £20,000 of proposed funding for this scheme will potentially save 240 tonnes of carbon against the 940 tonnes potential identified in the CMP SIP.
16. Since approving the CMP SIP, a revised structure for the management of CMP has been created. A sustainable energy team will coordinate the CMP with a revised Assistant Sustainability Officer acting as Project Manager (this position is currently vacant and is funded through City Strategy), and the Energy Manger (already in post and funded through Property) acting as Project Implementation Officer. A Data Analyst post will be created to support both officers with essential baseline emissions data for CYC and each of its directorates. This post will be funded through Salix. The recruitment of the revised Assistant Sustainability Officer and Data Analyst positions will be completed with both officers in post by June 2009.

## **Housing**

17. As detailed in the original CMP SIP, CYC's housing stock accounts for approximately 34,500 tonnes of CO<sub>2</sub>. The CMP SIP's 25% target by 2013 excludes CYC housing stock, however, key schemes are included in CMP SIP with a separate target to reduce carbon emissions from housing stock by 25% by 2020.

The projects below are committed on the Housing Capital Programme and arise from the commitment to meet the Decent Homes Standard by 2010 and are included in CMP SIP but not in the 2013 target. Good progress is being made to complete these projects on time. To date work has had to centre on achieving the statutory Decent Homes Standard. Work through the CMP Core Team (made up of officers from across the council) will be carried out in 2009 to further developments and seek additional carbon saving projects in this area.

Key work to date includes:

- 6884 homes fitted with double glazed windows
- The fitting of class A boilers as standard and 100% efficient electric fires in CYC housing stock
- See below for existing CMP SIP projects:

Project		Lead Officer	CO <sub>2</sub> Savings (tonnes)	Original timescale for completion	Updated Progress
H1	Loft insulation DHP	Mark Grandfield	211	08/09	Ongoing and making good progress.
H2	Replacement boilers TC & DHP	Mark Grandfield	2,926	2010/11	Ongoing and making good progress.
H3	Render 11 blocks of flats DHP	Mark Grandfield	83	2010/11	Ongoing and making good progress.
<b>Total</b>			<b>3,220</b>		

Future planned Housing related projects:

- Approximately 1600 homes with substandard insulation will be surveyed and top up loft insulation installed
- Trialing of renewable heat sources to a number of homes as a pilot scheme
- Work through the CMP Core Team will be carried out in 2009 to further developments and seek additional carbon saving projects in this area.

18. At the time of writing this report an additional 2009/10 budget proposal of £100,000 has been recommended by the Executive to fund a programme aimed at improving energy conservation standards in homes in the City.

### **Additional issues**

19. The following section of this report highlights the Carbon Reduction Commitment (CRC) which is a new legally binding climate change and energy saving scheme that will compliment the CMP and include CYC. The CRC will cover large business and public sector organisations, and will have a significant impact on reducing CYC's and the UK's carbon dioxide emissions.
20. The CRC will be a mandatory carbon emissions trading scheme and is introduced through the Energy Act 2008. Under CRC all organisations will be issued annual carbon budgets, and will have to meet these reduced budgets or buy additional allowances for the excess emissions. CRC is similar to the Landfill Allowance Trading Scheme (LATS). Please see Annex C – briefing note on CRC for further details.



21. From 2010 - 2013 the CRC will require CYC to pay annually for approximately £264,000 worth of carbon allowances (or £792,000 over the first three years). This money will be repaid to CYC annually through a recycling scheme with +/- financial penalties/bonuses based on actual performance (approximately +/- 10% of the carbon budget i.e. £26,400 annually). Should CYC exceed its carbon budget there would also be a financial cost for purchasing additional carbon allowances.
22. CYC will need to incorporate into the CMP, from 2011, annual carbon trading strategies in order to deal with CRC efficiently. Effective carbon saving schemes and accurate carbon forecasting will also be vital to ensure the council remains within its carbon budget. A dedicated team across the council including energy, sustainability, finance and legal officers will be set up. DEFRA recommend that a management commitment of 57 person days per year will be needed to undertake primary activities of the scheme.
23. To better prepare for the CRC, CYC are enrolled in a one year, virtual trading scheme that mimics the CRC. Carbon Action Yorkshire is providing large businesses and public sector organisations across the region the opportunity to experience a completely free of charge simulation of carbon trading in a risk free environment. To this end CYC have joined this scheme and have committed to learning how to carbon trade as an authority (of which CMP will play a pivot role).
24. To date a team including energy, finance and sustainability officers have met to implement this pilot and to manage it for its duration (1 year). A full report on this will be provided to the Executive by May 2010.
25. The new CRC team will report by October 2009 on a full proposal to manage CRC for CYC. The Data Analyst will play a vital role in collating and managing the data required for this mandatory scheme, and including the collation of detailed carbon emissions per directorate.

### **Consultation**

26. The Executive approved the Carbon Management Programme Strategy and Implementation Plan in April 2008. This progress paper has been created by the senior officer/members of Carbon Management Board with the officer led CMP Core team, including representatives from each directorate, providing essential progress on the CMP schemes.

### **Options**

27. This is a progress report and for information only.

28. A detailed progress report with predicted carbon forecasts will be provided to the Executive in October 2009.
29. A detailed report on managing and implementing the CRC will be submitted by October 2009 for approval by the Executive.
30. Failure to prepare for CRC is detailed in sections 38 – 42 and is not an option as it is statutory scheme.

### **Analysis**

31. This is a report on progress only and to prepare CYC for CRC.
32. All carbon savings in this report are approximates at present. Data from council activities will be available from June 2009 and will be reported under National Indicator 185 and in an annual monitoring CMP report. Additional information, excluded from NI 185 (Housing and Waste) will also feed into the annual monitoring report that will be compiled for CMP.

### **Corporate Priorities**

- The CMP meets the following corporate and partnership objectives.
- ‘Without Walls’ – the Sustainable Community Strategy which provides the sustainable framework for York;
- ‘Environmental Sustainability Strategy and Action Plan towards a Climate Change Strategy for the City’ - *The City of York Council will reduce its CO<sub>2</sub> emissions by 25% on 2006/07 baseline by 2013*’.
- Corporate Direction Statement – *“We will seek to place environmental sustainability at the heart of everything we do”*
- Corporate Improvement Priority – *“Reduce the greenhouse gas emissions from council activities and encourage, empower and promote others to do the same”*
- Corporate Value Statement – *“Encouraging Improvement in everything we do”*

### **Implications**

33. Financial – A budget of £250,000 was approved for inclusion in the 2008/09 capital programme to spend on carbon reduction projects. As outlined above Salix will also match fund this to create a combined budget of 500,000 to implement CMP schemes in 2009/10.
34. Many projects which save carbon dioxide emissions also save money because of reduced energy bills (gas, electricity and fuel). Revenue

savings achieved as a result of a project funded from the carbon capital programme will be returned to the carbon fund so that they can be spent on future carbon reduction projects. This mechanism is a requirement of an application for Salix funding. A majority of the carbon reduction schemes also result in energy savings. Therefore an element of the carbon reduction programme can be self-financing.

35. Human Resources: - One new posts will be created: a Data Analyst. The job description of the currently vacant post of Assistant Sustainability Officer has been rewritten to account for their project management role in the CMP. Salix will fund the other post.
36. Equalities, Legal, Crime and Disorder: Legal will be consulted on CRC and where necessary will form part of the team implementing CRC.
37. Property and IT – N/A

### **Risk Management**

38. Failure to meet carbon emission targets may result in the council being financially penalised under the Carbon Trading Scheme (including the Carbon Reduction Commitment (CRC)).
39. Failure to achieve reductions in energy use could result in further financial pressures for the council in a volatile energy market.
40. Failure to coordinate our approach to sustainability may result in a reduced level of performance in pursuit of the council's priorities.
41. To the image and reputation of the council.
42. A risk and issues log has been started and is at section 7.4 of the CMP SIP.

### **Recommendations**

43. Members are asked to note the good progress that has been made to date.
44. Reason: To be aware of the coordinated approach CYC is taking and will continue to take in order to manage carbon emissions from council activities and ensure the 2013 target is met on time.
45. Members are asked to note that a full progress report, with forecasted potential carbon savings over the remaining 4 years, project plans and timetables for implementation will be supplied to the Executive once a full year of energy data is available.
46. Reason: To be fully aware of the coordinated approach CYC is taking and will continue to take in order to manage carbon emissions from council activities and ensure the 2013 target is met on time.

47. Members are asked to note the creation of a CRC internal officer group who will investigate CRC and create a proposal for managing it by October 2009.
48. Reason: To ensure CYC is prepared for CRC when it is implemented in 2010.

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**Wards Affected: All**

**Report Approved**  **Date**

**For further information please contact the author of the report**

### **Background Papers**

Report to and minutes of Executive 22 April 2008 –  
Carbon Management Programme – Strategy & Implementation Plan

### **Annex:**

- A – CMP strategy and Implementation Plan April 2008
- B - Salix funded Projects
- C – Briefing Note – CRC